

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P550800

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-93-88-ED1D**

Issue Date: 7/9/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P550800
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCC-X-2-LD4-1LO-35-UNV-93-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

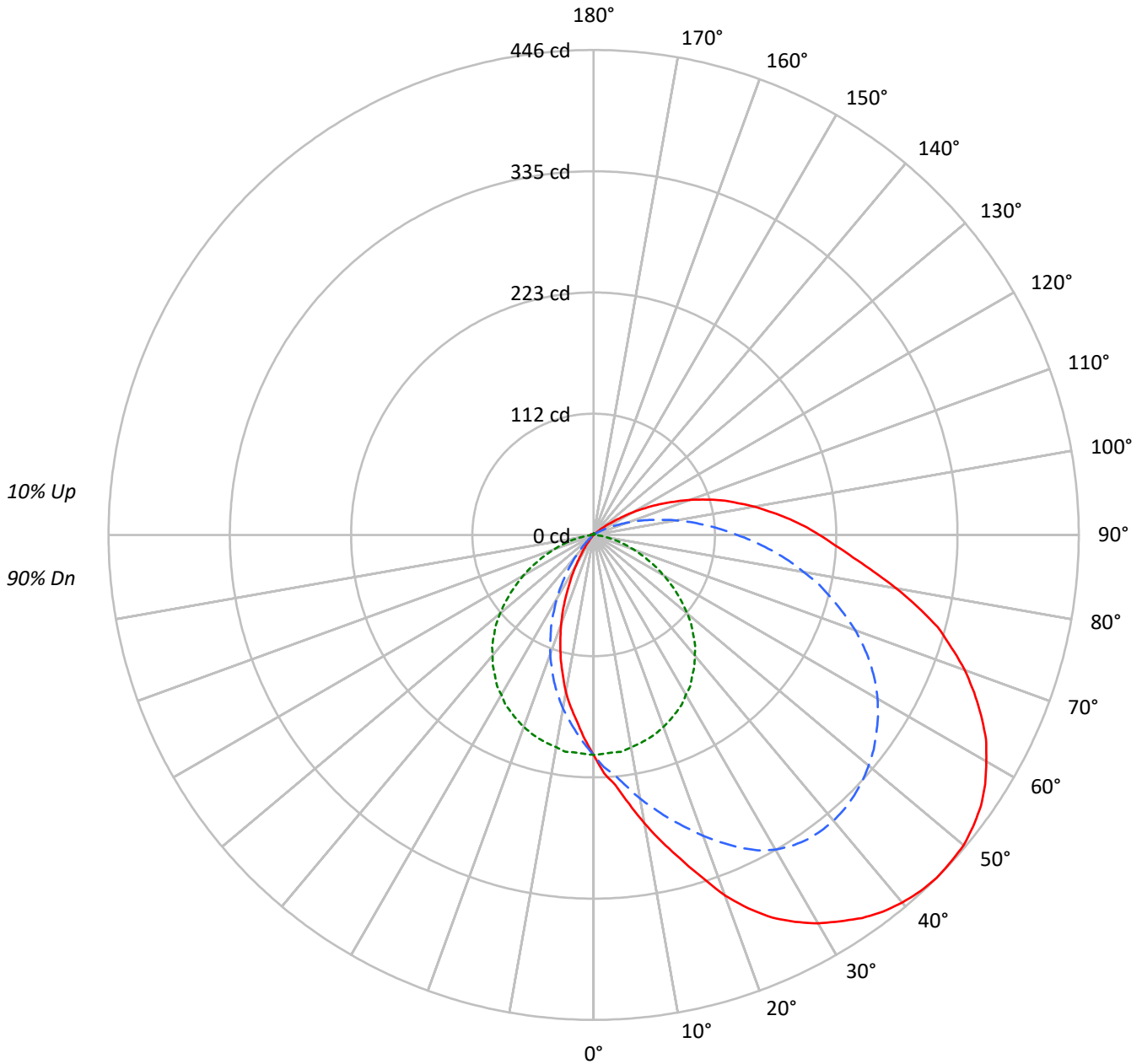
Lumens per Lamp: N/A
Luminaire Lumens: 1000.0 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2178	2178	2178
5°	2390	2145	1790
10°	2705	2120	1476
15°	3031	2092	1150
20°	3419	2058	847
25°	3740	2019	556
30°	3979	1966	313
35°	4186	1909	138
40°	4369	1839	33
45°	4526	1751	0
50°	4659	1634	0
55°	4759	1486	0
60°	4810	1313	0
65°	4830	1119	0
70°	4814	911	0
75°	4752	672	4
80°	4561	410	21
85°	4407	198	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.4	1.9
10°-20°	58.0	5.8
20°-30°	93.9	9.4
30°-40°	120.7	12.1
40°-50°	136.6	13.7
50°-60°	141.5	14.2
60°-70°	133.5	13.3
70°-80°	111.9	11.2
80°-90°	81.1	8.1
90°-100°	53.3	5.3
100°-110°	30.8	3.1
110°-120°	13.6	1.4
120°-130°	3.7	0.4
130°-140°	0.8	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	171.3	17.1
0°-40°	292.0	29.2
0°-60°	570.2	57.0
0°-90°	896.6	89.7
90°-120°	97.7	9.8
90°-150°	102.7	10.3
90°-180°	103.0	10.3
0°-180°	1000.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	202	202	202	202	202	
5°	231	222	201	182	173	23
15°	308	270	194	140	117	89
25°	388	317	180	92	58	179
35°	430	342	158	45	14	270
45°	446	339	129	10	0	344
55°	435	317	93	0	0	388
65°	393	281	56	0	0	389
75°	328	227	24	0	0	343
85°	240	164	4	1	2	205
90°	208	132	1	2	2	114
95°	178	103	0	2	2	140
105°	123	53	0	1	2	129
115°	67	18	1	1	1	67
125°	20	2	1	1	1	20
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	202.3	202.3	202.3	202.3	202.3	202.3	202.3	202.3	202.3	202.3	202.3
2.5°	219.3	219.0	218.3	217.0	215.2	212.1	209.5	207.2	204.1	201.5	196.6
5°	230.9	229.6	228.6	227.3	223.1	220.3	215.7	210.5	205.6	200.7	190.9
7.5°	249.4	247.4	245.8	242.2	236.5	230.1	222.9	218.0	214.6	201.0	184.2
10°	269.3	267.5	264.4	257.9	251.0	241.7	231.4	219.8	209.5	198.2	178.3
12.5°	288.9	286.3	281.9	273.7	263.9	252.3	238.1	224.4	209.7	196.3	171.4
15°	308.4	305.6	301.0	290.9	278.0	262.8	245.6	228.3	211.0	194.0	164.1
17.5°	329.8	326.0	319.0	307.7	291.4	272.6	252.3	231.4	210.5	191.2	156.4
20°	352.8	347.3	339.9	324.7	305.6	283.4	259.0	234.5	210.3	187.8	147.6
22.5°	371.8	366.4	358.2	342.5	319.5	292.5	264.6	236.5	209.2	184.0	139.4
25°	388.3	383.9	374.9	356.9	332.7	302.0	270.0	238.1	207.7	179.9	130.6
27.5°	401.2	397.1	387.0	368.5	343.7	310.5	274.2	238.9	205.6	175.7	121.6
30°	412.5	408.4	396.3	377.2	351.2	317.2	278.3	239.1	203.0	169.6	111.8
32.5°	421.3	417.4	405.1	384.7	356.4	321.8	280.6	238.9	199.7	165.2	101.3
35°	430.1	426.2	411.8	390.1	360.2	323.9	282.4	237.6	195.6	158.0	91.2
37.5°	436.8	432.4	417.7	393.7	362.0	324.4	282.2	235.8	191.2	152.0	81.2
40°	441.4	436.8	421.0	395.8	362.6	323.6	280.1	232.7	186.0	144.6	70.6
42.5°	444.5	439.3	422.6	398.9	361.5	321.6	277.0	228.8	180.4	138.1	60.6
45°	446.0	440.6	422.8	396.3	359.7	317.7	272.4	223.9	174.2	129.4	50.5
47.5°	445.3	439.3	421.6	393.5	356.4	313.6	267.2	218.0	166.7	121.6	41.0
50°	444.0	437.8	418.7	389.9	351.7	308.4	261.5	210.8	159.0	112.1	32.5
52.5°	439.9	433.7	415.6	384.7	346.3	302.5	253.8	203.3	150.7	102.8	24.7
55°	434.7	429.0	410.2	380.1	339.4	295.3	246.6	195.3	142.8	93.3	17.8
57.5°	426.7	421.6	403.5	372.6	332.4	287.3	238.6	186.6	132.7	83.7	12.4
60°	416.9	411.8	394.2	364.1	324.4	278.3	229.8	177.5	123.7	74.2	7.7
62.5°	406.6	401.7	383.4	353.5	314.4	268.8	220.3	168.5	114.2	65.4	4.6
65°	393.0	388.3	371.8	340.9	303.3	258.4	209.7	157.7	104.4	55.7	2.6
67.5°	378.5	374.4	357.7	329.3	290.4	247.1	198.9	147.1	94.1	47.2	1.3
70°	363.1	357.9	342.5	313.6	277.3	234.2	187.1	136.3	84.3	38.9	0.0
72.5°	345.0	341.2	326.2	298.9	262.1	220.6	175.0	124.5	73.4	30.9	0.3
75°	327.5	322.6	309.0	283.2	247.1	206.1	161.6	113.4	62.9	23.7	0.3
77.5°	304.8	303.3	290.4	265.4	232.9	192.2	146.9	100.0	52.8	17.0	0.3
80°	282.2	280.6	270.6	247.6	216.4	175.7	133.2	87.4	43.0	11.3	0.3
82.5°	259.7	257.7	248.1	229.1	199.7	161.8	119.0	74.7	34.0	7.0	0.3
85°	239.6	237.1	226.8	209.2	182.4	146.1	104.4	62.4	25.3	3.9	0.5
87.5°	222.4	220.6	209.2	191.2	164.9	131.4	91.5	50.5	17.8	1.8	0.8
90°	207.7	203.8	193.8	174.7	148.4	115.2	77.8	40.5	11.9	1.0	1.0
92.5°	193.3	189.9	178.8	159.2	133.7	101.3	64.7	30.9	7.5	0.5	1.3
95°	178.3	174.7	163.9	145.8	118.8	87.1	53.1	22.7	4.1	0.5	1.3
97.5°	163.6	160.3	148.9	130.9	105.4	74.7	42.0	16.0	2.1	0.5	1.0
100°	150.0	146.1	135.8	117.8	92.0	62.4	32.5	10.3	1.3	0.5	1.0
102.5°	135.5	132.4	121.9	104.4	78.1	50.8	24.2	6.4	0.5	0.5	0.8
105°	122.7	118.8	108.5	90.4	66.5	39.9	17.0	3.9	0.5	0.5	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	79.9	76.8	67.8	52.6	33.8	15.7	4.6	0.8	0.8	0.8	0.8
115°	66.7	62.1	54.1	40.7	25.0	10.3	2.3	0.8	0.8	0.8	0.8
117.5°	53.3	49.5	43.8	30.9	16.5	6.7	1.3	0.8	0.8	0.8	0.8
120°	41.7	38.1	31.7	21.4	11.1	3.9	0.5	0.8	0.8	0.8	0.8
122.5°	29.9	27.1	21.4	13.9	6.7	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.8	18.3	14.2	8.5	4.1	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.9	11.6	8.2	4.9	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.2	6.4	4.9	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.1	3.9	2.6	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	202.3	202.3	202.3
2.5°	192.5	188.9	187.8
5°	182.2	176.3	172.9
7.5°	171.9	163.9	160.0
10°	162.3	151.0	146.9
12.5°	151.0	137.9	131.4
15°	140.2	123.2	117.0
17.5°	128.1	109.0	101.8
20°	116.7	94.8	87.4
22.5°	103.8	80.9	72.7
25°	92.2	67.0	57.7
27.5°	79.4	52.8	44.8
30°	67.3	40.5	32.5
32.5°	55.7	29.6	22.4
35°	44.8	20.1	14.2
37.5°	34.5	12.4	7.2
40°	25.0	6.4	3.3
42.5°	16.7	3.1	1.8
45°	10.3	1.5	0.0
47.5°	5.9	0.0	0.0
50°	3.1	0.0	0.0
52.5°	1.3	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	0.3	0.3	0.3
77.5°	0.3	0.5	0.8
80°	0.5	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	1.3	1.5
87.5°	1.3	1.5	1.8
90°	1.5	1.8	1.8
92.5°	1.5	2.1	2.1
95°	1.8	2.1	2.3
97.5°	2.1	2.3	2.3
100°	1.8	2.3	2.6
102.5°	1.5	2.3	2.3
105°	1.3	1.8	2.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.0	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	108.2	105.1	94.8	77.8	54.4	30.4	11.3	2.1	0.5	0.8	0.8
110°	94.3	91.7	81.2	64.7	43.8	22.7	7.5	1.3	0.8	0.8	0.8





107.5°	1.0	1.5	1.8
110°	1.0	1.3	1.5



(END OF REPORT)